

ABSTRACT

In an etching method and apparatus, a plasma etching is performed on an etching target film formed on an object to be processed in a processing chamber by generating a plasma of a processing gas introduced into the airtight processing chamber. A resist including an alicyclic acrylate resin and/or an alicyclic methacrylate resin is used as a mask and wherein the plasma etching is performed while maintaining a surface temperature of the object at about 20°C or less.